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EXAMINER

CHOW, MING

ART UNIT	PAPER NUMBER
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2645

DATE MAILED: 04/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/817,641

Applicant(s)

ZHOU, DEJIAN

Examiner

Ming Chow

Art Unit

2645

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Claim Objections***

1. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

There are two claims numbered as 29. The second claim numbered as 29 has been renumbered to be 30.

2. Claim 8 recites "the one trunk". There is insufficient antecedent basis for this limitation in the claim.

3. Claim 9 recites "the other one". There is insufficient antecedent basis for this limitation in the claim.

***Drawings***

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4. The drawings are objected to because proper legends were missing. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1, 8, 16, 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term “likely” is not clearly defined.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 1-7, 9-15, 17-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Mo (US: 6137875).

For claims 1, 4, 12, 14, 22, 24, 25, 29, regarding “a storage.....switch system”, Mo teaches on column 4 line 1-3 determining whether a trunk is available on the free list (reads on claimed “a storage element”).

Regarding “a controller.....call origination”, Mo teaches on column 2 line 60-62 administration module (claimed ‘controller’) determines which trunk is available.

Regarding “if the at least.....call origination”, Mo teaches on Fig. 2 when FIFO is determined to have precedence (priority), the sub-trunk group (item 202 Fig. 2) is more likely to be used by switch module 13 of Fig. 2. Therefore, switch module 11 of Fig. 2 selects another trunk from sub-trunk group (item 200 of Fig. 2).

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Regarding claims 2, 15, 23, 26, Mo teaches on item 204 Fig. 2 main queue where lists available trunks for the first switch. Mo teaches on item 206 Fig. 2 shadow queue lists available trunks for the second switch. There must be identifiers in the main queue and shadow queue to identify trunks.

Regarding claims 3, 13, 19, Mo teaches on column 3 line 44-46 and Fig. 2 both ends of a trunk group hunt an idle trunk. The FIFO mechanism reads on the claimed "least idle algorithm". The LIFO mechanism reads on the claimed "most idle algorithm".

Regarding claims 5, 17, 27, Mo teaches on steps 308, 316 the result of "YES" reads on claimed "select one trunk". Mo teaches on steps 318, 310 decrement idle count (reads on claimed "remove an identifier of one trunk").

Regarding claims 6, 7, 18, 28, Mo teaches on Fig. 4 increment free count (reads on claimed "return an identifier of a released trunk").

Regarding claims 9, 20, Mo teaches on column 3 line 48-54 Forward Linear and Backward Linear algorithms.

Regarding claims 10, 21, Mo teaches FIFO (claimed "clockwise circular queue") and LIFO (claimed "counter-clockwise circular queue"). A circular queue is a FIFO or a LIFO queue that is logically represented in a circular fashion.

Regarding claim 11, Mo teaches on step 316 Fig. 3. Switch 1 of Fig. 1 identifies available and unavailable trunks (reads on claimed “track trunk selections”) when trunks are used by switch 3 (claimed “second switch”) of Fig. 1 as a priority trunk group.

Regarding claim 30, all rejections as stated in claims 1 and 2 above apply.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 8, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mo as applied to claim 7 above, and in view of Simcoe et al (US: 5313641).

Mo failed to teach “the controller adapted to further.....the second switch”. However, Simcoe et al teach on column 5 line 67-68 a queuing system for trunk selections. Simcoe et al teach on column 10 line 54 to column 11 line 4 comparing the entries between current queue (claimed “main queue”) against the next available queue (claimed “shadow queue”).

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It would have been obvious to one skilled at the time the invention was made to modify Mo to have the “the controller adapted to further.....the second switch” as taught by Simcoe et al such that the modified system of Mo would be able to support the comparing between the main queue and shadow queue to the system users.

### *Conclusion*

8. The prior art made of record and not replied upon is considered pertinent to applicant's disclosure.

- Begeja (US: 6175621) teaches priority call on busy.

9. Any inquiry concerning this application and office action should be directed to the examiner Ming Chow whose telephone number is (703) 305-4817. The examiner can normally be reached on Monday through Friday from 8:30 am to 5 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang, can be reached on (703) 305-4895. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Customer Service whose telephone number is (703) 306-0377. Any response to this action should be mailed to:



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**Commissioner of Patents and Trademarks**

**Washington, D.C. 20231**

**Or faxed to Central FAX Number 703-872-9306.**

Patent Examiner

Art Unit 2645

Ming Chow

(m)

FAN TSANG  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600

